

Polycentropus sp.

One from Los Banos; may not belong to genus in restricted sense.

Chimarrha luzonica n. sp.

Head yellowish, antennæ pale yellowish, palpi dark brown, erect hair each side on vertex; thorax and abdomen dark, legs pale yellowish, but the spurs dark brown; wings gray blackish, nearly uniform, with sparse black hairs, veins darker; hind wings colored like fore wings, fringe black at tip, gray behind, fork 3 of hind-wings with a very long pedicel, fully twice as long as the fork; discal cell of fore wings rectangular, anal veins separate at ends. Expanse, 10 mm.

From Los Banos, Philippine Islands.

EXPLANATION OF PLATES.

- Fig. 1. *Chrysopa isolata*, cubital cells.
 Fig. 2. *Tagalopsyché sisyroides*, wings.
 Fig. 3. *Dipseudopsis luctuosa*, wing, and spur.
 Fig. 4. *Dinarthrodes niger*, male appendage.
 Fig. 5. *Dinarthrodes niger*, head and antenna.
 Fig. 6. *Echnopsyche reticulata*, wings.
 Fig. 7. *Tagalopsyché sisyroides*, palpus and genitalia.
 Fig. 8. *Chimarrha luzonica*, fore wing.
 Fig. 9. *Hydromanicus cinctipennis*, genitalia.
 Fig. 10. *Neoperla recta*, head and part of wing.
 Fig. 11. *Echnopsyche reticulata*, genitalia.
 Fig. 12. *Neoperla obliqua*, head.
 Fig. 13. *Dinarthrodes niger*, fore wing.
 Fig. 14. *Hydropsychodes costalis*, genitalia.
 Fig. 15. *Leptocella bakeri*, genitalia.
 Fig. 16. *Chrysopa tagalica*, cubital cells.
 Fig. 17. *Neoperla obliqua*, part of wing.

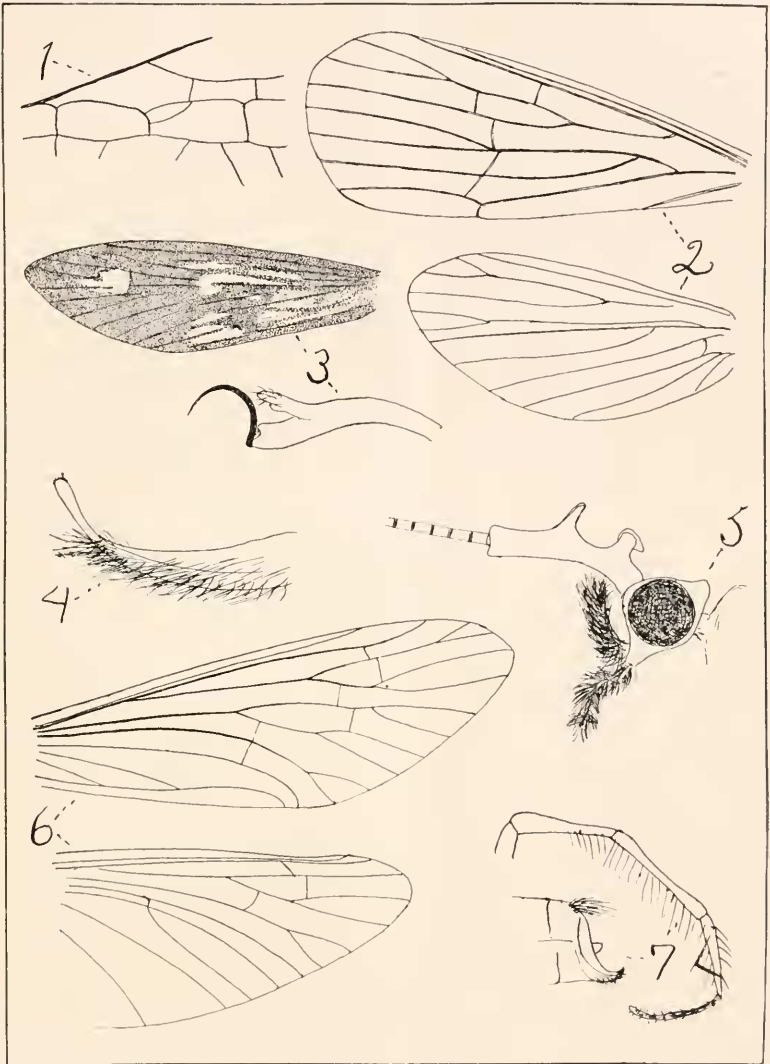
DESCRIPTIONS OF NEW PARASITIC HYMENOPTERA.

BY S. A. ROHWER, *Bureau of Entomology.*

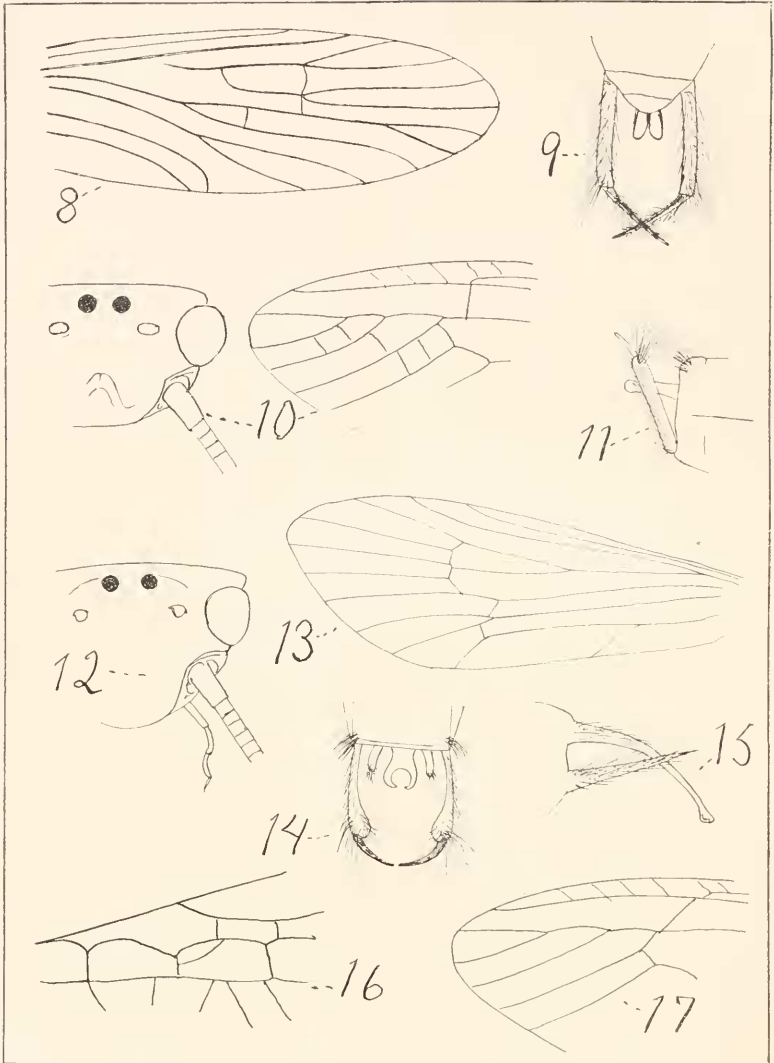
The following miscellaneous descriptions of new parasitic Hymenoptera are presented at the present time so that the names of certain species which have proven to be of economic importance in controlling forest insects and other injurious insects will be made available for discussion in economic papers.

Ichneumon brunneri, n. sp.

Seems to belong to the group of *Barichneumon* and runs there in Ashmead's table of the genera, but Morley says that this group



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has the post-petiole punctured centrally, which is not the case with our species. In Cresson's synopsis of American Ichneumons this runs near *caeruleus* but the black scutellum and other color characters will readily separate it from that species.

Female. Length, 11 mm. Anterior margin of the clypeus produced into a low, obtusely triangular, median tooth; supraclypeal foveæ punctiform, deep; the median basal portion of the supraclypeal area convex, separated from the bases of the antennæ by a distinct carina; anterior ocellus in a broad, shallow depression; postocellar line one-third longer than the ocellular line; flagellum filiform, first joint slightly longer than the second; face and front with distinct well defined separate punctures; vertex and posterior orbits nearly impunctate; mesoseutum granular with dense setigerous punctures; scutellum more sparsely punctured than the scutum; mesepisternum punctured similarly to the scutellum; sides of the propodeum sculptured like the mesepisternum; posterior aspect of the propodeum with large, confluent, close, punctures; basal lateral area with rather large distinct punctures; areola, basal lateral area and basal area almost impunc-



Fig. 1. Areolation of the propodeum of *Ichneuman brunneri*.

tate; areolation as in figure 1; the central portion of the post-petiole finely, longitudinally aciculate; gastrocoeli well defined; basal portion of the second tergite longitudinally striate, the remaining portion longitudinally striato-punctate; the base of the third and fourth segments striato-punctate, the remaining portion sparsely punctured, following segments practically impunctate; apical sternite truncate apically; empodia large, well defined, median portion membranous; legs normal; areolet pentagonal. Dark blue black; inner margin of the eyes almost to the vertex, spot at the summit of the eye, posterior margin of the eye, lateral margin of the dorsal posterior margin of the pronotum, top of mesepisternum, an incomplete annulus on the ninth, tenth, eleventh and twelfth joints of the flagellum and anterior tibiæ beneath, *white*; wings hyaline, venation black.

Male. Agrees well with above description of female except in the following points: The antennæ are somewhat antenniform; the clypeus is nearly truncate; and the color differs as follows: Mandibles except apices, clypeus, face marks produced inwardly so they meet, just below the antennæ, scape beneath, base of the anterior tarsus, base of the four posterior tibiæ, and the base of the four posterior basitarsi, *white*.

Missoula, Montana. Described from one male and one female recorded under Bureau of Entomology Number Hopk. U. S. 11526. Material collected January, 1913, and reared by Joseph Brunner, for whom the species is named. The female is the type.

Type: Cat. No. 16032, U.S.N.M.

***Itopectis plesia*, n. sp.**

Judging from the description this resembles *Pimpla behrensi* Cresson, but may be separated from that by the shorter ovipositor and in not having the apical margin of the tergites yellow.

Female. Length, 9 mm.; length of ovipositor 5 mm. Apical margin of the clypeus straight; front with the distinct, well defined, separate punctures, which become more widely separated towards the inner margins of the eyes; seen from the side, the entire front is gently convex; the antennal foveæ sharply defined below; area immediately below and between the antennæ depressed into a V-shaped fovea, the apex of the V being ventral; the distance between the eyes at the vertex slightly less than the distance between them at the clypeus; the emargination is broad; head above the antennæ and the posterior orbits shining, practically impunctate, straight above the inner bases of the antennæ; ocellular line subequal with the width of the lateral ocellus; third antennal joint but little shorter than the fourth and fifth combined; mesoscutum shining with widely separated setigerous punctures; mesepisternum similarly sculptured; scutellum and propodeum similarly sculptured; dorsal aspect of the propodeum with two well defined diverging carinæ which extend to where the sloping posterior face begins; first tergite with sparse well defined punctures except the median apical area which is practically impunctate; the second tergite with large, sometimes confluent punctures except the apical margin which is practically impunctate; basal margin with two elongate foveæ, just before the apical margin depressed, the depression broader laterally; the third tergite similar to the second except there is no fovea basally; the fourth tergite similar to the third but not quite so densely punctured; the fifth and following tergites with sparse punctures. Black; tegulae white; legs below the coxæ rufo-ferruginous; the intermediate tibiæ annulated at the base with black, and below the black annulation is a white annulation; posterior tibiæ and tarsi black, the tibiæ with a white annulation at the basal third, the base of the first and second tarsal joints white; calcaria white; the intermediate tarsi have the two basal joints white at the base; wings hyaline iridescent, venation black.

Camas, Montana. Described from one female recorded under Bureau of Entomology Number Hopk. U. S. 11528. Material collected, January, 1913, and reared by Joseph Brunner.

Type: Cat. No. 17063, U.S.N.M.

STILBOPOIDES n. genus.

The inner margin of the eyes not emarginate, slightly converging towards the vertex; clypeus well separated from the front, the anterior margin rounded; mandibles bidentate; malar space a little shorter than the length of the scape; antennæ of the female thickened apically with the apical joint elongate and slightly longer than the two preceding it; antennæ of the male simple, almost as long as the body; front slightly convex; propodeum exareolate, posterior face separated from the dorsal aspect by strong carina; spiracles circular in outline; anterior wings with an areola; nervulus well beyond the basal vein; nervellus broken slightly below the middle; claws apparently simple but seen magnified 35 diameters, finely pectinate; apical joint of the hind tarsi not quite twice the length of the preceding one; first, second and third tergites transversely depressed apically; abdomen coarsely punctured.

In Schmiedeknecht's classification this genus runs to *Cnemopimpla* Cameron, but differs in a number of points from the original description of Cameron's genus. The eyes are not sinuate on the inner margin and the areola is triangular, as well as other characters. In Ashmead's classification this runs to *Stilbops* Förster, but the exareolate propodeum will readily separate this from *Stilbops*.

Type: Stilbopoides maculiventris, n. sp.

***Stilbopoides maculiventris*, n. sp.**

Female. Length, 10 mm. Head polished, rather densely punctured, posterior orbits shining, practically impunctate; postocellar line about twice as long as the ocellocular line; first joint of the flagellum distinctly longer than the second; the scutum, scutellum, and episternum shining, with small well separated punctures; propodeum closely, sometimes confluent punctured with the carina separating the two faces, slightly curved in the dorsal middle; first abdominal segment shining with close well defined punctures laterally, and along the apical transverse furrow striato-punctate; second and third tergites similarly punctured except the punctuation tends to a transverse striato-punctuation; fourth and following tergites finely reticulate, shining. Black; spot on the clypeus orange yellow; spot on the mandibles, tegulæ, posterior margin of the pronotum, apices of the coxæ beneath, anterior trochanters beneath, sternites, except spots laterally, white; sides of the scutum, scutellum, most of the mesepisternum, mesosternum, dark rufous; legs rufo-testaceous, except where mentioned, and the dark brown posterior tibiæ and tarsi; wings hyaline, iridescent, venation black.

Male. Length, 10 mm. Disregarding the sexual characters, the male agrees well with the female except that there is no rufous on the thorax and the apices of the posterior femora are black; first joint of the flagellum slightly longer than the second; posterior ocelli prominent; cochlearium,

seen laterally broad basally, dorsal margin straight for half its distance then tapering rapidly to the obtuse apex; the ventral margin straight, deeply sinuate at the apical third.

Missoula, Montana. Described from two females (one type) and two males recorded under Bureau of Entomology number Hopk. U. S. 11504b. Material collected, January, 1913, and reared by Joseph Brunner.

Type: Cat. No. 15385 U.S.N.M.

***Stilbopoides sesiavora*, n. sp.**

Differs from *Stilbopoides maculiventris* Rohwer in the longer first tergite, in the lack of a median depression on the basal portion of the first tergite, in the narrower, smooth apical margins of the first, second and third tergites, and in the slightly different color.

Female. Length, 12 mm. Clypeus with the apical portion smooth, apical margin truncate the basal portion sculptured as the front; the lateral supraclypeal areas shining, very finely punctured; the median supraclypeal area mound shaped, with distinct, fine, separated punctures; head above the antennæ shining, very sparsely punctured; laterad of each lateral ocellus is an elongate fovea; postocellar line one-third longer than the ocellular line; scape strongly dilated; third antennal joint slightly longer than the fourth; mesoscutum with distinct well defined separate punctures; scutellum with punctures more widely separated; mesepisternum shining, very sparsely punctured, especially posteriorly; propodeum truncate posteriorly; the posterior aspect separated from the dorsal aspect by a well defined carina; posterior and lateral aspects shining, with sparse, well defined, rather large punctures; the median area shining and more or less U-shaped; the posterior face very sparsely sculptured with distinct well defined punctures, in outline semicircular; first tergite about one-third longer than the apical width, the posterior median portion with a distinct depression, punctured similarly to the dorsal aspect of the propodeum except posteriorly they become closer; the median apical margin of the first tergite shining, impunctate; second tergite sculptured about as the densest portion of the first tergite; its puncturation becomes denser posteriorly, its apical margin with a narrow, shining, impunctate band; third tergite uniformly sculptured like the posterior portion of the second tergite; it also has a narrow, shining, impunctate band; fourth tergite sculptured as the third tergite except that the apical margin before the shining, impunctate band is depressed into a furrow which is interrupted medianly; fifth tergite with poorly defined punctures; the following tergites practically impunctate with the surface finely granular; venation and legs as in *maculiventris*. Black; mandibles except apices, apical portion of the clypeus, anterior superior orbits, lateral anterior stripes on the mesoscutum, tegulae,

a spot before and beneath and a spot in front of intermediate coxæ, *white*; legs rufo-ferruginous; the anterior coxæ and trochanters beneath, the bases of all the tibiæ white; the posterior tibiæ and tarsi to the extreme apices of the posterior femora black; membrane of the sternites white with black maculations laterally; wings hyaline, faintly dusky; venation black.

Male. Length, 10 mm. Agrees well with the above description of the female but for the usual sexual characters, and in having the clypeus entirely, the inner orbits to vertex, and two spots extending from the clypeus to the bases of the antennæ and an elongate spot on the mesepisternum below, *white*.

Winchester, Virginia. described from three females (one type) and one male recorded under Bureau of Entomology Number Quaintance 10401. Specimens reared by E. B. Blakesley, April 20, 1913, from *Sesia pyri*.

Type Cat. No. 16854, U.S.N.M.

Genus HELCOSTIZUS Foerster.

Syn. *Asternaulax* Viereck, Proc. U. S. Nat. Mus. vol. 42, 1912, p. 632.

A comparison between *Asternaulax fiskei* Viereck and *Helcostizus brachycentrus* (Gravenhorst) revealed no generic differences. The writer is of the opinion that Ashmead was correct in placing *Helcostizus* in the *Xoridini*. To him the habitus is *Xoridini* not *Phygadonini*, where Schmiedeknecht places it, and the complete absence of sternauli would also remove it from *Cryptinæ*. As far as the American species of *Echthurus* Gravenhorst are concerned he is of the opinion that they should be placed in the subfamily *Cryptinæ* as they all have sternauli. In other words the Pimplinæ includes genera in which the sternauli are wanting.

HELCOSTIZIDEA, n. genus.

Cubocephalus Ashmead (nec Ratzeburg) Proc. U. S. Nat. Mus. vol. 23, 1910, p. 61.

This genus has somewhat the habitus of some of the *Cryptini*, but differs from all *Cryptini* in the absence of the sternauli. It resembles them however, in that the spiracles on the first tergite are placed slightly beyond the middle.

Head, seen from above, quadrate or nearly so; temples broad; malar space as long or nearly as long as diameter of the eye, mandibles short, bidentate apically; apical margin of the clypeus depressed; scape strongly convex dorsally, straight ventrally, longer on the dorsal line than on the ventral line; prepectus represented by faint carinæ; sternauli obsolete; scutum without furrows; propodeum areolate, the areola sometimes con-

fluent with the basal area, though usually separated from it by a transverse carina; areolet triangular; nervulus and basal vein interstitial or nearly so; discal-cubital vein not broken by stump; nervellus broken well below the middle; first abdominal segment petiolate, the spiracles placed slightly beyond the middle; abdomen of the female slightly compressed apically; legs robust; calcaria short; tarsal claws with an erect median tooth, and with small teeth basally.

Type: Cubocephalus atrocavalis Ashmead.

Related to *Helcostizus* Foerster but separated from it by the well defined areola. *Cubocephalus* Ratzeburg has *sternaui* and belongs to the Cryptinæ.

***Helcostizidea xanthognatha*, n. sp.**

This species resembles *atrocoxalis* (Ashmead), but may be separated from it by the posterior legs of the areola being much shorter than the anterior legs.

Female. Length to the apex of the abdomen, 14 mm. Antennæ filiform; head finely granular; the area immediately above the antennæ depressed, the depression extending ventrally from the anterior ocellus; the intra-ocellar area divided by short, longitudinal furrow; posterior ocelli bound posteriorly and laterally by a deep furrow; postocellar line distinctly longer than the ocellocular line which is about twice the diameter of the lateral ocellus; scutum shining, very sparsely punctured, although anteriorly the punctures are closer and become subopaque; scutellum convex, sculptured similarly to the scutum; the suture separating the scutellum and scutum foveolate; lateral posterior margin of the pronotum reticulate; the upper margin of the mesepisternum obliquely striate, the remaining portion punctate on a finely granular surface; suture between the meso- and meta-thorax strongly foveolate; sides of the propodeum sculptured like the mesepisternum; dorsal aspect of the propodeum finely granular; basal area almost parallel-sided, although anteriorly the carinæ diverge, separated from the areola by a poorly defined transverse carina; areola slightly longer than wide posterior parallel legs about two-thirds the length of the anterior diverging legs; surface of the areola and the posterior face of the propodeum transversely striate; abdomen finely granular except the apex and the first tergite which is impunctate; tibiæ with minute spines and short hair. Black; palpi, mandibles except apices and tegulae, yellowish white; four anterior legs below coxæ, posterior trochanters and the posterior femora rufous, or rufo-ferruginous; the intermediate tarsi dusky; wings hyaline, venation brown; costa and stigma dark brown.

Columbia Falls, Montana. Described from one female recorded under Bureau of Entomology Number Hopk. U. S. 8530a, material collected by Joseph Brunner.

Type: Cat. No. 16047 U.S.N.M.